



PRODUCT RECOMMENDATION PROGRAM

ABSTRACT

An in-depth product evaluation of the Hawse Pro Roller fairlead conducted by the International Four-Wheel Drive Trainers Association (I4WDTA)

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I4WDTA Product Recommendation Program Report



Product recommendation report: Hawse Pro roller fair lead (2&4 roller)

The purpose of this report is to provide both Hawse Pro and the general public testing information from the International Four-Wheel Drive Trainers Associations Product Recommendation Program. The programs’ purpose is to take and evaluate new industry products by selected I4WDTA trainers who work in the off-road driving and recovery industry as both Guides and instructors. This provides our industry partners with real world feedback from professional users under real world use in a variety of environments. The end state is to determine if the product is something our trainers would both use and recommend to their customers and as association as a whole.

Hawse Pro Roller fairlead Product description:

The Hawse Pro Roller fairlead is a winching accessory mounted to the front of winches. It is made from stainless steel and 6061 T6 aluminum. It comes in two low profile variants consisting of either 2 or 4 rollers. The design allows the fairlead to take advantage of its low profile like a standard Hawse Fairlead will take advantage of its built-in rollers reducing friction and heat on synthetic winch lines.



2 Roller Variant



4 Roller Variant



Disclaimer: “Product tested was current generation at the time of this report”

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Evaluation details

Evaluation articles:

- 5 sample articles were utilized in this evaluation 4 provided by Hawse Pro LLC
- 1 privately owned article.
- Both the 1st generation two roller variant and the 2nd generation 4 roller variant were evaluated.

Each variant was evaluated in different locations in different environments. This allowed for varied types of terrain, seasonal weather conditions and other conditions each article would see while in use.

- West Virginia
- New Mexico
- North Carolina
- Alberta Canada
- Colorado

Winch types:

All articles were used with a variety of brand winches front bumper mounted, 12v electric, 10,000-12,000lb rating with synthetic winch line.

Vehicles: a variety of commercial vehicles such were used with weights ranging from 6-8000lbs

- Toyota LC79
- Toyota FJ
- Toyota Tacoma
- LC200, Toyota Hilux
- Toyota 4 runner

The I4WDTA instructors were asked to use the Hawse Pro Roller fairleads in normal everyday fashion as well as conduct recoveries during training under controlled conditions and any other time they may need to use their winch all while capturing pertinent information during the recovery such as weather, type of recovery conducted, weather conditions and any noticeable issues found during the winching process.

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Instructors were asked to provide their findings in the following areas.

- Ease of installation
- Product instructions
- Maintenance instructions
- Types of rigging: single line, double line, redirect, utilizing angles of 30-35 degrees.
- Any noticeable issues, failures, breakages, or safety issues.
- Durability
- Pros and cons of the Hawse Pro fairlead
- If they would add this item to their normally used recovery equipment
- If they would recommend this product to their students/clients

Below is the summarization of the collected information in each category from all participating instructors over the course of the last 12-month period the evaluation was being conducted.

Ease of Installation:

- It was determined by all participants that both variants are easily installed with general mechanical ability, basic and simple hand tools and will fit most of the winch bumper currently on the market.
- The Hawse Pro fairlead has two mounting hole positions to allow for ideal installation depending on the end user's needs.
- Basic hardware is needed for affixing the fairlead.
- Longer hardware bolts may be needed due to the thickness of the hawse pro fairlead and the thickness of some winch bumper materials.

Product instructions:

- The product instructions with the Hawse Pro fairlead are pretty straight forward and clearly cover the installations, care, and maintenance of the product with a clear description of its intended and proper use.
- It clearly states any and all safety warnings, normal proper winching safety considerations.
- Such considerations mentioned are the safety considerations regarding friction introduced heat and abrasion that could impact synthetic winch lines commonly used with winch fairleads.
- Safe winching practices are covered in regard to winching at severe angles greater than 45 degrees to prevent damage to the winch line and prevent side loading and damaging the winch or winch line.

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Maintenance:

- The Hawse pro fairleads are meant to be maintenance free under normal use conditions.
- From the Manufacturer: Hawse Pro fairleads are assembled with fluorinated synthetic lubricant as well as self-lubricating bronze and Mitsubishi Nilatron 6/6 bushings. Disassembly-Unit can be pressure washed as a complete unit or disassembled in the rare occasion dirt or debris less than .005 / .010 gets lodged in under extreme conditions. Hawse Pro Units on the FEA has completed 1 million cycles under full load before any plastic bushing deformation occurs.

Rigging and recovery

The use of various types of recoveries and rigging set ups were requested to be used to ensure a wide variety of use cases could be completed with each of the test samples. From the following recovery rigging set ups evaluators were asked to use the test samples in each configuration to see how their test samples worked in their working environment after repeated use.

Evaluators were asked to use their test samples by conducting a variety of recoveries. Recoveries were to range from self-recovery and the recovery of other vehicle platforms. The intent was to put each test sample through real world use scenarios that our evaluators find themselves doing while guiding or conducting training on proper use of recovery equipment and techniques.

The rigging set ups ranged from though a variety of single line, double line, redirect using pulley blocks and at a wide variety of angles to ensure that each roller was heavily used during these scenarios. While 35 degrees is norm and recommended maximum angle to conduct a recovery, some evaluators conducted recoveries based on circumstances above 35 degrees.

Any noticeable issues, failures, breakages or safety issues.

Over the course of 12 months and more than 60+ recoveries across 5 test samples the following were the observations that were reported by the evaluators.

Hawse Pro 2 roller fairlead:

- It was noticed that the 2-roller fairlead model due to lack of side vertical rollers width have to be given that same considerations as a normal Hawse fairlead in regard to contact friction and keeping the winch line pulling angles to 35 degrees or below.
- It was recommended that for this variant of Hawse Pro fairlead a pulley block be used to redirect the winch line to keep it under a 35-degree angle to mitigate its contact with the sides of the fairlead.
- This will reduce the chance of contact friction and heat buildup on the winch line causing damage.

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Hawse Pro 4 roller Fairlead:

- The Hawse Pro 4 Roller fairlead has four free rolling metal rollers that mitigate the damage done by friction heat on the synthetic line due to dragging the line across a metal surface that one would see on a traditional Hawse Fairlead.
- The Hawse Pro roller fairlead also mitigates these issues of poorly manufactured roller fairleads and unsound winching practices.
- Issues seen from these two factors consist of the synthetic line getting pinched at the intersection of the vertical and horizontal rollers.
- The Hawse Pro with four rollers avoids any binding through a seamless and radiused transition from the vertical to the horizontal rollers.
- Consideration should be given when mounting the Hawse Pro fairlead and its hardware. Ensure the bolts are long enough to ensure thread engagement to properly secure the fairlead.

The Hawse Pro is a precision machined assembly of multiple components made from aircraft aluminum 6061 T6 and stainless steel. Every component of the Hawse Pro is a precision machined component. The Hawse Pro has a precision machined backing plate. It also has two precision machined front end plates that contain the integrated vertical rollers and the horizontal rollers. The two front end plates are then fastened to the backing plate. Tolerances are extremely tight on the precision machined Hawse Pro.

During the field use of the Hawse Pro 4 one observation of note was that during initial use one of the side rollers stopped rolling on several of the side pull recoveries. Upon disassembly the following was found.

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Upon being disassembled the Hawse Pro 4. It was found that on the vertical side rollers was that:

- 1) There was grit on the shaft the roller is supposed to rotate on
- 2) There was rust observed on the shaft the roller is supposed to rotate on.
 1. We think the origin of the rust is from the bushing installed in the side roller.
- 3) The horizontal rollers appeared clean.

It is not clear whether the rust / grit between the shaft and the side roller caused the side roller to stop rotating. It is clear though that dirt and rust can get into the side rollers. See above pictures.

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Conclusion:

The Hawse Pro Fairlead both the 2 and 4 roller versions are expertly engineered pieces of recovery equipment that is long overdue. Given its simplistic precision engineered and assembled form factor and American made high quality materials the Hawse Pro is a welcome addition to modern recovery equipment. The Hawse Pro addresses several issues that have plagued the recovery world for years.

The Hawse Pros design effectively eliminates the issues of both roller fairleads and standard hawse pro fairleads. Its rollers sit in line with each other reducing the chance of damaging it while off roading since it has a lower profile than standard roller fairleads, it eliminates the chance of a synthetic winchline becoming caught between rollers due to its tight tolerances and smooth transitions between rollers. The Hawse Pro eliminates the issues of friction and heat transfer to the synthetic winchline commonly seen in standard hawse fairleads, extending the life and serviceability of the user winchline.

During the evaluation process the product samples were repeatedly tested for durability and reliability under real world environments in various weather and environmental conditions in different parts of North America by a diverse group of I4WDTA trainers. Over a 12-month period, on one report, an issue was captured as shown in the above pages and documented photo. The issue is one of minor concern and can easily be mitigated with preventative maintenance and service of the Hawse Pro Fairlead.

After the long evaluation process and feedback from the I4WDTA certified instructors it is determined that the International Four-Wheel Drive Trainers Association and its certified trainers would both utilize the Hawse Pro Fairlead in the professional recovery equipment and with high confidence recommend it to their client and the general public for use. The I4WDTA is proud to recommend this product to our industry partners as well.

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